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CLAIMS

1. A friction material comprises:

a friction surface;

a non-friction surface located opposite to the friction surface; and

a resin contained in the friction material;

wherein a distribution of an amount of the resin in a thickness direction from a side of the friction surface to a side of the non-friction surface of the friction material is made lower at a portion near the friction surface than a portion having a highest amount of the resin in the thickness direction.

2. A friction material according to claim 1, in which the amount of the resin of the friction material is made about 5% or more lower at the side of the friction surface than at the side of the non-friction surface.

3. A friction material according to claim 1, in which the amount of the resin of the friction material is made about 5% or more lower at the side of the friction surface than at an inside of the friction material.

4. A friction material according to claim 1, in which the distribution of the amount of the resin of the friction material changes in a continuous manner.

5. A friction material according to claim 1, in which the distribution of the amount of the resin of the friction material changes in a discontinuous manner.

6. A friction material according to claim 1, in which the distribution of the amount of the resin of the friction material is formed by impregnation of the resin.

7. A friction material according to claim 1, in which the distribution of the amount of the resin of the friction material is made about 1% or more lower at the side of the friction surface than an average rate of the resin in the friction material.

8. A friction material according to claim 1, in which the distribution of the amount of the resin changes two-dimensionally in a width direction and the thickness direction of the friction material when the friction material is cut along a largest length.

9. A friction material according to claim 8, in which the two-dimensional change in the distribution of the amount of the resin is such that the distribution of the amount of the resin is made higher at an outer peripheral portion than at a central portion of the friction material.

10. A manufacturing method of a friction material comprising the steps of:

making a resin contained in the friction material; and

drying the friction material;

wherein the drying step includes a step for making low a temperature at one surface of the friction material and/or making high a temperature at another surface of the friction material.

11. A manufacturing method of a friction material according to claim 10, in which

the drying step further includes a step for rotating the friction material in drying at a predetermined temperature condition so as to make a distribution of an amount of the resin higher at an outer peripheral portion of the friction material by a centrifugal force in rotating.

12. A manufacturing method of a friction material comprising the steps of:

making a resin contained in the friction material; and

drying the friction material;

wherein the drying step includes steps for drying two friction materials with friction surfaces thereof overlapped with each other and then hardening the friction materials at a high temperature while separating the friction materials or keeping the friction materials overlapped.

13. A manufacturing method of a friction material according to claim 12, in which the drying step further includes a step for rotating the friction material in drying at a predetermined temperature condition so as to make a distribution of an amount of the resin higher at an outer peripheral portion of the friction material by a centrifugal force in rotating.

14. A manufacturing method of a friction material comprising the steps of:

making two or more friction materials containing a different amount of a resin; and

overlapping the friction materials so as to join the friction materials into one body before finishing drying of at least one of the friction materials containing the different amount of the resin.

15. A manufacturing method of a friction material according to claim 14, in which the drying step further includes a step for rotating the friction material in drying at a predetermined temperature condition so as to make a distribution of an amount of the resin higher at an outer peripheral portion of the friction material by a centrifugal force in rotating.

16. A manufacturing method of a friction material comprising the steps of:

impregnating a resin in a friction material; and

drying the friction material;

wherein the impregnating step includes a step for impregnating resins having different viscosities in a front surface and a rear surface of the friction material, and the drying step includes a step for drying the friction material at a predetermined temperature condition while locating downward a side of the friction material at which the resin having a larger viscosity is contained.

17. A manufacturing method of a friction material according to claim 16, in which the drying step further includes a step for rotating the friction material in drying at the predetermined temperature condition so as to make a distribution of an amount of the resin higher at an outer peripheral portion of the friction material by a centrifugal force in rotating.

18. A manufacturing method of a friction material comprising the steps of:

impregnating a resin in a friction material; and

drying the friction material;

wherein the impregnating step includes a step for impregnating an additional resin on one surface of the friction material, and the drying step includes a step for drying the friction material at a predetermined temperature condition while locating outside a side of the friction material in which the additional resin is impregnated and giving a centrifugal force to the friction material in a thickness of the friction material.

19. A manufacturing method of a friction material according to claim 18 in which the drying step further includes a step for rotating the friction material in drying at the predetermined temperature condition so as to make a distribution of an amount of the resin higher at an outer peripheral portion of the friction material by a centrifugal force in rotating.